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New England Biolabs Certificate of Analysis

Product Name: Notl
Catalog Number: R0189M
Concentration: 50,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg

of pBC4 DNA in 1 hour at 37°C in a total reaction volume of 50 μl.

Packaging Lot Number: 10118763
Expiration Date: 08/2023
Storage Temperature: -20°C

Storage Conditions: 250 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 0.15% Triton X-100, 200 µg/ml BSA

Specification Version: PS-R0189M v1.0

Notl Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0189MVIAL	Notl	10118762	Pass	
B7024AVIAL	Gel Loading Dye, Purple (6X)	10108733	Pass	
B6003SVIAL	NEBuffer™ r3.1	10116057	Pass	

Assay Name/Specification	Lot # 10118763
Endonuclease Activity (Nicking) A 50 μl reaction in NEBuffer 3.1 containing 1 μg of supercoiled PhiX174 DNA and a	Pass
minimum of 100 Units of Notl incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 100 units of Notl incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pBC4 DNA with Notl, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with Notl.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of pBC4 DNA and a minimum of 100 Units of Notl incubated for 16 hours at 37°C results in a DNA pattern free of	Pass



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Assay Name/Specification	Lot # 10118763
detectable nuclease degradation as determined by agarose gel electrophoresis.	

This product has been tested and shown to be in compliance with all specifications.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Penghaa Zhang Production Scientist

19 Oct 2021

Michael Tonello

Packaging Quality Control Inspector

19 Oct 2021

